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(54) Title: SILICONE BASED DIELECTRIC COATINGS AND FILMS FOR PHOTOVOLTAIC APPLICATIONS

(57) Abstract: A dielectric coating for use on a conductive substrate including a silicone composition of the formula: $[R_xSiO_{(4-x)/2}]_n$ wherein $x=1-4$ and wherein R comprises of methyl, or phenyl, or hydrido, or hydroxyl or alkoxy or combination of them (when $1 < x < 4$). R can also comprise other monovalent radicals independently selected from alkyl or aryl groups, aryloether, alkylether, alylamide, arylamide, alkylamino and arylamino radicals. The dielectric coating has a network structure. A photovoltaic substrate is also disclosed and includes a conductive material having a dielectric coating disposed on a surface of the conductive material.